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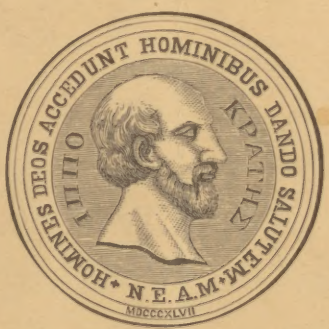
# MULTIPLE ABSCESS OF THE LIVER.

BY

SAMUEL W. DANA, M.D.,

LATE SURGEON TO THE NEW YORK DISPENSARY.

[*REPRINTED FROM THE TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE FOR JULY*, 1875.]



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# CASE OF MULTIPLE ABSCESS OF THE LIVER.

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Read July 1, 1875.

The case of "Multiple Abscess of the Liver," which I have the honor briefly to report this evening, was seen during some part of its course by several Fellows of this Academy, and is believed to possess some points of rarity and interest.

The patient—a widow lady, fifty-two years of age, engaged during the previous ten years in active business pursuits, and during this period enjoying good general health—was attacked on the 3d of June, 1873, after unusual indulgence in eating, with severe epigastric pain and persistent vomiting. These symptoms, partially relieved during abstinence, were excited anew by every attempt to introduce even the blandest form of nourishment into the stomach.

After a few days, pain in the right hypochondrium extending around to the back began to be complained of, and a slight bilious tinge appeared upon the skin. The bowels were constipated unless acted on by medicine or injections.

On June 22d the patient was seen by my friend Dr. Purple. She had then been eighteen days sick. Her condition was one of great exhaustion. There was also decided emaciation. From this point, however, she began slowly to improve, and by the middle of July was sufficiently recovered to leave for the country. Her convalescence was apparently perfect. Subsequently, for more than a year, she was in the enjoyment of excellent health.

On the 14th of September last (1874), nine months and

three days before her death, the patient complained of pain in the head and back, with a feeling of general *malaise;* said she had spent some time in the park the previous evening, and thought she had taken cold. The following day she felt as well as usual. On the 16th she suffered an attack similar to that of the 14th. In reply to inquiries, she said that she had never suffered from fever and ague; but in July of the previous year she had spent two weeks in Greenwich, Conn., a malarial district.

On the 18th she had a chill, followed by fever and sweating. Quinine was then given, and the chills interrupted for the time.

On the 17th of October, after partaking of a hearty dinner, the patient was attacked with severe epigastric pain and vomiting. During the next ten days the attack much resembled that of June of the previous year, being characterized by occasional severe epigastric pain, vomiting, inability to take food, rapid emaciation, and loss of strength. There were also some pain and tenderness in the right hypochondrium, and paroxysms of chills and fever, though nearly controlled by quinine, showed a tendency to recur every second day.

Dr. Purple saw the patient on the 28th of October, and occasionally afterward during the next three weeks. At the above date a slight yellow tint had appeared on the skin, which in the following days rapidly deepened to that of intense jaundice. Bile disappeared from the fæces, while the secretion of the kidneys, which was scanty, resembled, both in color and consistence, bile rather than normal urine.

With the development of jaundice the pain and tenderness in the right hypochondrium increased, and a chill came every forenoon with an exacerbation of fever in the evening; the temperature, as indicated by the thermometer in the axilla, ranging from 101½° in the morning to 103½° in the evening. At this period slight fullness in the region of the right hypochondrium was noticed. The free margin of the liver extended about two inches below the cartilages of the ribs, and yielded on palpation a feeling of increased resistance.

At this time the case was regarded as one of malarial fever which had passed from the intermittent to the remittent type. The jaundice remained quite intense for about a week, then gradually declined. The pain and tenderness in the region of the liver diminished, and the fever abated; the temperature during the fourth week varied from 100° to 101° at the evening exacerbation. It was during the decline of the jaundice that a new symptom appeared which came into somewhat prominent notice during the subsequent course of this case, namely chills, often slight, sometimes quite severe, occurring with irregular intervals, usually one or two, sometimes three or four, in the course of twenty-four hours.

During the third week of November—the fifth week of the attack—the condition of the patient was far from promising. Chills were of frequent occurrence. Coldness of the extremities made necessary the application of artificial heat during a considerable part of each twenty-four hours, while a slight evening exacerbation of fever was followed by copious sweating during the earlier part of the night. There were great emaciation and weakness, and marked sallowness of complexion. The lips showed great pallor. The pulse was quite feeble and rapid; the tongue pale and dry; a frequent, short, dry cough began to harass the patient, her feet and legs became œdematous, while the facial expression assumed such a character as to add to the solicitude which the symptoms just mentioned had aroused. This condition of extreme prostration seemed partly due to the patient's inability to take and appropriate nourishment. The stomach had been quite irritable from the first; milk, eggs, and alcoholic stimulants, it rejected utterly. Beef-tea was the only nourishment taken during the first four weeks, and that in amount quite inadequate. But even that the stomach now rejected unless the solid particles constituting its sediment were first strained out, leaving it nearly worthless. Various extracts of beef made into tea were next tried, and though tolerated by the stomach were found in point of nutrition quite insufficient. Beef-tea prepared after Liebig's method was tried with better success.

The stomach bore it well and in sufficient quantity. Its employment at this time seems to have been the means of rescuing the patient. The improvement, however, was quite slow. Frequent chills still harassed the patient, and seemed to neutralize every tendency toward convalescence. By the middle of December, however, substantial improvement had been made. The chills had diminished in force and frequency. The patient had gained in strength. During the last two weeks of December the chills entirely disappeared, and the patient was able gradually to resume her ordinary diet of solid food. From December 22d to January 18th the patient had no marked chill, though she noticed an occasional coldness of the extremities, which caused her to keep near the fire for an hour or two at a time. During this period, however, her convalescence was quite rapid. She was free from pain, ate heartily, and slept well, gained in flesh and strength, resumed her usual avocations, and received the congratulations of her friends on her supposed recovery.

On January 18th a chill occurred. Quinine, of which five grains a day had been given since January 1st, was now increased to ten grains, and, although a tendency to the recurrence of chills occasionally manifested itself, yet during the next four weeks, to the middle of February, the patient enjoyed very fair health. On February 16th, after an indiscretion in eating, she had an attack of indigestion, which kept her in bed three days. From this point during the following four months, to the time of her death, with some brief periods of improvement, there was on the whole a gradual and steady decline. About this time the irritative chills again made their appearance, though slight and of infrequent occurrence. Near the 1st of March, in connection with an attack of indigestion, the patient complained of pain in the right hypochondrium, for which a blister was applied. The pain was of short duration, and this was the only occasion on which she had complained of pain since the previous November. During the month of April there was more frequent recurrence of the chills, with progressive loss of strength and digestive power.

She found it necessary again to relinquish solid food and return to beef-tea, which she now took with reluctance, and in quantities insufficient to sustain life for a prolonged period. About the middle of May, increasing weakness compelled her to take to her bed, from which she scarcely rose during the last four weeks of her life. Increased tenderness over the liver was noticed some days prior to the 1st of June. The abdominal muscles also at times were remarkably rigid. In the first week of June a tumor was detected on the upper surface of the liver, just beneath the cartilages of the ribs, which did not, however, yield a sense of fluctuation. With the exception of the local symptoms just referred to, no new symptom appeared during the last few weeks of life. Progressive emaciation and increasing feebleness seemed alone to mark the progress of the case. But little food was taken during the last two weeks; none during the last forty-eight hours. The patient's intellect remained clear until a few hours before her death, which occurred on the morning of the 17th of June, seven months and a half from the occurrence of the jaundice, seven months from the occurrence of the irregular or irritative chills, and four months from the time of their recurrence in February.

The *post-mortem* examination was made fifteen hours after death—present, Drs. Purple, Clark, Prescott, Campbell, and Dana. On turning aside the abdominal coverings, the lower margin of the liver was seen projecting about two inches below the cartilages of the ribs, and normal in appearance. On attempting to bring the entire organ into view, it was found adherent by its superior surface to the abdominal wall in front, the adhesion being about one square inch in extent. While this was being broken up, although the manipulation was quite gentle, pus spurted from a point on the inferior surface. When the entire organ was brought into view, that portion of the superior surface which *in situ* was covered by the ribs, presented a striking appearance, eliciting the remark, from one of the gentlemen present, that it was clearly a case of cancer. Scattered thickly over this portion of the

surface were slight elevations circular in outline, and from one-fourth of an inch to an inch in diameter. Several of these elevations, aggregated more closely together, constituted the tumor that had been diagnosticated before the patient's death. It was of an irregularly oval outline, about two by two and a half inches in diameter, and with an average elevation of six or eight lines above the general surface of the liver. The scalpel quickly revealed the fact that the elevations referred to were abscesses, and further investigation showed that the right lobe of the liver was filled with abscesses thickly disseminated through its entire extent, varying in size from that of a pea to that of a hen's-egg. The pus contained in them was light colored, and rather thin and fetid. The left lobe of the liver and spleen were normal. The right lobe of the liver was about two-thirds of its normal size.

The *post mortem* having definitely shown the case, at least at its conclusion, to have been one of multiple abscess of the liver, dependent on portal infection, or portal phlebitis, three questions of interest present themselves: 1. What was the source of such infection? 2. At what period did it occur? 3. What was the nature of the chills which formed so prominent and so persistent a feature in this case?

Leaving to others the general discussion of these questions, I shall conclude the report of this case by mentioning a few facts observed during the course of the disease, which may tend in some degree to their elucidation. In regard to the first question, that of the source of the portal infection, unfortunately, facts bearing on this point are meagre. The circumstance that the abscesses were limited to the right lobe of the liver, and thickly disseminated through it, would seem to indicate that the infection did not enter the general portal current, but only that portion of it distributed to the right lobe; and that, therefore, its source was in the liver itself, and not in any other of the abdominal viscera. And this view seems in harmony with the history of the case, no symptom at any time having pointed to suppurative or ulcerative action in any other of the abdominal organs, while early in the case the symptoms

suggested the probability of suppurative action within the liver.

2. At what period did portal infection occur? The history of the case seems to leave this point in some obscurity. In November there were symptoms of suppurative action in the liver, pain, tenderness, hardness of the liver, jaundice, frequent chills, elevated temperature, night-sweats, great prostration, etc. Then followed a period of absence of chills, and of partial convalescence; then a period of gradual decline, lasting four months. If portal infection occurred at any period subsequent to November, it took place very quietly without producing marked impression on the general system, or giving rise to any local symptom as far as is known. As bearing on the question of an early origin of the portal infection, there is to be noticed the very slow rate of progress of the case during the last four months, as indicated by the general symptoms. It had in general the aspect of a case of chronic rather than acute disease. During the last three weeks when we knew that abscesses of the liver were present, the rate of decline was as slow as during the previous four months.

3. What was the nature of the chills? Were they malarial, or symptomatic of suppurative action, or in part both?

The chills commenced September 14th, five weeks before there was any suspicion of local disease. They showed a tendency to recur every second day throughout the entire course of the disease, excepting a short period in November, when they came every day. The irregular chills began during the decline of the jaundice in the second week of November, and continued with greater or less frequency till about the 1st of January, when they entirely disappeared. They reappeared about the middle of February, and continued except when controlled, by treatment, to the close. The effect of quinine in controlling the chills was remarkable. This came especially to notice during the last three months. The patient having come to hate the drug and the disease with an almost equal hatred, on several occasions she suspended the use of the quinine for a few days. The effect in every instance was the

same. The chills, which, while the quinine was being used, merely marked their time by a short period of discomfort, would, on the suspension of the medicine, come back with decided severity. A marked instance of this occurred during the patient's illness. On June 1st the patient had concluded to take no more quinine. On the evening of that day—it being the regular period—she had a slight chill. On the evening of June 3d she had a severe chill which lasted till midnight. Before reaction had fairly set in a second chill occurred, more severe than the first. The following morning she was found pulseless, with icy coldness of the extremities, but in fair possession of her mental faculties. Death seemed imminent. She was now willing to resume the quinine. It was administered to her liberally, and reaction gradually set in. After this occurrence the patient lived two weeks, and taking her quinine regularly, there was no recurrence of the chill.